

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate status identifier.

Claims 1-19 and 21-27 are now pending in this application.

1. Rejection of Claims 1-5, 7-11, 13-16, 18, 19, 21, 22, and 24-27 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Ghassabian in View of Katsura

On page 2 of the Office Action, claims 1-5, 7-11, 13-16, 18, 19, 21, 22, and 24-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghassabian (U.S. Patent No. 7,020,270) in view of Katsura (U.S. Patent No. 6,377,324). Independent claim 1 recites a combination including, among other limitations,

a flexible electronic display coupled to the processor and the power source, the flexible display being configured in more than two sections, each section being foldable behind another section, such that whatever sections are viewable to a user are the display area being used by the host device.

The display of claim 1 may be viewed in both a folded and an unfolded orientation, providing variable-sized viewing areas to users. Ghassabian does not teach or suggest this feature. In rejecting claim 1, the Examiner relied on FIGS. 16-17 for disclosure of the above limitation. Applicants respectfully submit that the Examiner has mischaracterized Ghassabian in making the rejection.

Ghassabian is directed to an “integrated keypad system” that may be used as an input device for a variety of electronic devices. See col. 1, lines 20-26. FIGS. 16-17 of Ghassabian, relied on by the Examiner in the Office Action, refer to various separate embodiments of the invention, and show both single and multi-sectioned LCD devices. For example, as stated in the “Detailed Description of the Drawings” section of Ghassabian,

“FIG. 16a shows an LCD device, sized as a credit card, according to one embodiment of [the] invention; FIG. 16b shows a multi-sectioned LCD according to one embodiment of [the] invention; [and] FIG. 16c shows a multi-sectioned LCD according to one embodiment of [the] invention.” Col. 6, lines 45-51. None of these separate embodiments teach or suggest a display that may be viewed in both a folded and unfolded state. For example, FIG. 16a does not show a foldable display. FIGS. 16b and 16c show separate embodiments of a foldable display, but neither figure shows the display being usable in any other than an unfolded position. For example, if one section of the display of FIG. 16b were folded behind the other section (as required by claim 1), neither section of the display would be viewable. FIG. 16b shows a device that is either closed (i.e., “folded”), such that no portion of the display is viewable, or open (i.e., “unfolded”), such that the display is viewable. FIGS. 16d-16g similarly fail to teach or suggest the claimed subject matter.

FIG. 17 of Ghassabian, also referenced by the Examiner in the Office Action, also fails to teach or suggest a display that may be viewed in both a folded and unfolded state. Ghassabian states that “FIG. 17 shows a large LCD panel having multiple hinges for increased folding or miniaturization.” Col. 6, lines 61-62. FIG. 17 illustrates an LCD panel at various states of folding, e.g., unfolded, partially folded, and fully unfolded. There is no teaching or suggestion that the display of FIG. 17 is usable in any position other than the fully unfolded position. In fact, Ghassabian discloses that panel 1700 shown in FIG. 17 includes “a front LCD portion 1708 shown on front view 1700 and a rear portion for optional input devices or other components (not shown).” Col. 27, line 67 to col. 28, line 2. Thus, only the front of the LCD panel of FIG. 17 contains an “LCD portion,” such that in the partially folded or fully folded states, the “front LCD portion” is not viewable. Therefore, FIG. 17 fails to teach or suggest a display that may be viewed in both a folded and unfolded state.

Applicants have found no other portions of Ghassabian that teach or suggest the subject matter of claim 1. Thus, Applicants submit that Ghassabian clearly does not expressly teach or suggest:

a flexible electronic display coupled to the processor and the power source, the flexible display being configured in more than two sections, each section being foldable behind another

section, such that whatever sections are viewable to a user are the display area being used by the host device.

The Examiner's rejection, in effect, relies on inherency to provide the teaching or suggestion of the claimed limitation. In order to teach or suggest the above limitation of claim 1, the LCD panels of Ghassabian would need to be viewable on both sides, such that a viewing area is provided in both the folded and unfolded positions. However, this is not an inherent characteristic of LCD displays. The vast majority of LCD displays are one-sided displays, illustrating that the claimed limitation is not "necessarily present" in the reference, as required by the principles of inherency. See MPEP § 2112 IV. Accordingly, Applicants submit that any reliance on inherency for the teaching or suggestion of the above limitation of claim 1 is improper.

Katsura, also cited by the Examiner, likewise fails to teach or suggest the above limitation of claim 1. Katsura discloses a structure for installing a flexible LCD panel intended to prevent damage and degradation to the LCD due to bending. Col. 2, lines 33-38. The device in Katsura, however, may either be folded, such that the display is not viewable, or unfolded, such that the display is viewable. Thus, Katsura fails to make up for the deficiencies of Ghassabian with respect to claim 1.

Accordingly, Applicants submit that Ghassabian in view of Katsura fails to teach or suggest at least one limitation of independent claim 1, and that claim 1 is therefore patentable over the cited references.

Independent claims 7, 13, 18, and 24 each recites a limitation similar to that of claim 1. For example, claim 7 recites:

a flexible electronic display coupled to the processor and the power source, the flexible display being configured in more than two sections, each section being foldable behind another section, such that whatever sections are viewable to a user are the display area being used by the portable electronic device.

Claim 13 recites:

a foldable electronic display coupled to the processor and the power source, the foldable display being configured in more than two sections, each section being foldable behind another section, such that whatever sections are viewable to a user are the display area being used by the host device.

Claim 18 recites:

an expandable display assembly supported on the housing, providing a first viewing area and providing a second viewing area substantially the same size as the first viewing area, the first viewing area foldable underneath the second viewing area;

...

wherein a user may view images on the second viewing area when the display assembly is folded and on the combined first and second viewing areas when the display assembly is unfolded

Claim 24 recites:

viewing an image on a first viewing area of a flexible display, the flexible display comprising the first viewing area and a second viewing area folded behind the first viewing area, wherein images are not displayed on the second viewing area when folded behind the first viewing area;

...

enlarging the flexible display, by unfolding, to provide an enlarged viewing area comprising the first and second viewing area;

viewing an image in the enlarged viewing area.

As discussed above with respect to claim 1, the cited references fail to teach or suggest the above limitations of the rejected claims. Thus, claims 7, 13, 18, and 24 are believed to be patentable for at least the same reasons as claim 1.

Independent claim 7, 18, and 24 are believed to be further patentable over Ghassabian in view of Katsura because the cited references fail to teach or suggest at least one additional limitation in each of independent claims 7, 18, and 24. Claim 7 recites:

a flexible touch sensor movable with the flexible electronic display, providing an enlarged touch sensor area when the viewing area of the flexible display screen assembly is enlarged.

The Examiner acknowledged that Ghassabian fails to teach or suggest the above limitation of claim 7. The Examiner stated that “Katsura teaches a flexible touch sensor movable with the flexible electronic display. (Katsura, Fig. 1, Col. 3 lines 45-50). The Examiner did not, however, point out any portion of Katsura that teaches or suggest a touch sensor that is “enlarged” as in claim 7. Applicants respectfully submit that Katsura does not teach or disclose a touch sensor that is “enlarged” when the display is unfolded. Katsura teaches a “flexible liquid crystal display panel” that is mounted on a mounting member having a clearance groove for the bend in the panel. Katsura further teaches that the “flexible liquid crystal display panel 4 has, as an integral part of it, a touch-sensitive input operating part through which data can be entered by touching.” Col. 5, lines 13-16. Katsura does not address touch sensors with varying sensing areas, and does not teach or suggest a touch sensor that is “enlarged” when the display is unfolded. Accordingly, Applicants submit that claim 7 is further patentable over Ghassabian in view of Katsura because the cited combination fails to teach or suggest at least one additional limitation of independent claim 7.

Each of independent claims 18 and 24 contains a similar limitation to the above limitation of claim 7. Claim 18 recites:

a flexible touch sensor associated with the expandable display, the sensing area of the touch sensor being enlarged when the expandable display is unfolded.

Claim 24 recites:

providing input to the handheld computer via a first sensing area of a touch sensor associated with the first viewing area of the flexible display; [and]

...

providing input to the handheld computer via a second sensing area of the touch sensor comprising the first sensing area and associated with the enlarged viewing area of the flexible

display, the second sensing area being larger than the first sensing area.

As discussed above with respect to claim 7, the cited references fail to teach or suggest the above limitations of the rejected claims. Thus, claims 18 and 24 are believed to be patentable for the same reasons that claim 7 is patentable.

Accordingly, for the reasons discussed above, Applicants respectfully request that the rejection of independent claims 1, 7, 13, 18, and 24, and corresponding dependent claims 2-5, 8-11, 14-16, 19, 21, 22, and 25-27, be withdrawn.

2. Rejection of Claims 6, 12, 17, and 23 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Ghassabian in View of Katsura and Further in View of Charlier.

On page 9 of the Office Action, claims 6, 12, 17, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghassabian in view of Katsura and further in view of Charlier (U.S. Patent Appl. Publ. No. 2003/0064751).

Claim 6 depends from independent claim 1. Claim 12 depends from independent claim 7. Claim 17 depends from independent claim 13. Claim 23 depends from claim 18. Independent claims 1, 7, 13, and 18, as discussed above, are believed to be patentable over Ghassabian in view of Katsura. Charlier does not appear to make up for the deficiencies of Ghassabian in view of Katsura with respect to independent claims 1, 7, 13, and 18. Accordingly, Applicants submit that dependent claims 6, 12, 17, and 23 are patentable for at least the same reasons and respectfully request that the rejection of dependent claims 6, 12, 17, and 23 be withdrawn.

3. Conclusion

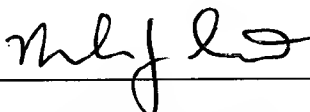
Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

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